

SP-T1 Effects of Project Features and Operation on Wildlife and Wildlife Habitat

October 25, 2002

1.0 Introduction/Background

Current and future Department of Water Resources management and operation of the Oroville facilities may impact wildlife and their habitats. Project operation and management can affect wildlife species and their habitats in a positive or negative manner. Identification and quantification of these impacts can provide project managers and stakeholders with the information necessary to make sound management decisions. This information can be used to:

- Identify management options or project modifications which minimize project-related impacts;
- Identify opportunities for habitat enhancement; and,
- Identify species trade-offs associated with management and operation of the facilities.

The scope of this issue includes all of the other wildlife issues identified during the scoping process. Analyses will rely extensively on information collected under other terrestrial resource studies.

2.0 Study Objectives

The objectives of this study are to 1) identify any on-going and potential future project-related effects on wildlife and wildlife habitat; and 2) provide information that can be used to identify potential protection, mitigation, and enhancement measures. This study will evaluate selected groups of wildlife species, special status species, as well as, species biodiversity.

3.0 Relationship to Relicensing /Need for the Study

Identification and quantification of project effects on wildlife and wildlife habitat has been recognized as an issue by relicensing stakeholders including stakeholders with mandatory conditioning authority and is a FERC requirement. Evaluation of project effects on wildlife resources is also required for CEQA/NEPA compliance.

Limited data currently exists related to project effects on wildlife resources and no previous evaluation of overall project effects on wildlife resources has been conducted. The information collected will be used to identify potential protection, mitigation and enhancement measures for project-related impacts to wildlife resources.

4.0 Study Area

The study area is generally within or adjacent to the FERC project boundary, and also includes the Feather River downstream to the confluence with the Sacramento River. The specific study area encompasses those described for SP-T3/5 through SP-T11. For analysis of special status species, the specific study area is defined in SP-T2.

Study plans approved by the Environmental Work Group define the limits of the study area. If initial study results indicate that the study area should be expanded or contracted, the Environmental Work Group will discuss the basis for change and revise the study area as appropriate.

5.0 General Approach

The effects of project features and operation on wildlife and wildlife habitat is an overarching issue inclusive of all the other identified wildlife issues including on-going and future project effects on:

- State and federal special status species;
- Flood plains and water level fluctuation zones;
- Wildlife habitat, wildlife populations, and species biodiversity;
- Riparian, wetland, and upland habitats;
- Interagency wildlife management, coordination, and planning;
- Noxious weeds and undesirable non-native wildlife;
- Recreation related impact assessment;
- Land management impact assessment; and
- Cumulative effects analysis.

The information/results from the other wildlife-related studies will provide the basic information used for analyses of effects of project features and operation on wildlife and wildlife habitat. If initial study results indicate that the methods and tasks should be modified, the Environmental Work Group will discuss the basis for change and revise the study plan as appropriate.

Task 1

Obtain wildlife habitat/plant community mapping (SP-T4), obtain wildlife biodiversity/habitat analyses (SP-T4), and obtain analyses of on-going and future project effects on state and federal special status species (SP-T2)

Task 2

Identify areas where project operations may occur and influence wildlife species.

Task 3A

Collect information related to on-going and future effects on wildlife and wildlife habitat associated with project operations and maintenance .

Task 3B

Complete analyses of on-going and future project effects on wildlife and wildlife habitat related to operations and maintenance conducted under (SP-T3/5, SP-T8, and SP-T10). Complete analyses of on-going and future project-related effects on wildlife and wildlife habitat related to recreation use and recreation facilities (SP-T9). Assessment of these effects may include both direct and indirect habitat loss as well as estimates of impacts on the populations of selected wildlife species, including waterfowl.

Task 4

Complete analyses of on-going and future project effects on wildlife and wildlife habitat related to land management within the project area (SP-T6, SP-T7, and SP-T11). These impacts may include vegetation and fuels management, grazing, and gravel harvest.

Task 5

Using the information collected and results obtained from Tasks 1 through 4 summarize the on-going and future project effects on wildlife and wildlife habitat. Identify area wide and site-specific impacts. These effects may include water level fluctuations, river hydrology, and maintenance activities.

Task 6

Based on the impact analysis, identify potential protection, mitigation and enhancement measures for wildlife and wildlife habitat. These measures will provide conceptual information on the benefits of each measure as well as, general location, approximate timing, and relative scale for implementation. These conceptual measures will be further developed after appropriate review and approval.

Task 7

A final report will be prepared summarizing project-related impacts on wildlife and wildlife habitat, and potential protection, enhancement and mitigation measures. Additional description on the contents of the report are provided below.

6.0 Results

Results of the study will be presented as a summary report to stakeholders. The purpose of the report is to provide information on wildlife and wildlife habitats potentially affected by the project as mandated by the Federal Power Act, California Environmental Quality Act, National Environmental Policy Act, Federal Endangered Species Act and State Endangered Species Act. The following outline will be used:

- 1.0 Introduction
- 2.0 Analysis of Project-related Effects on Wildlife Species
 - 2.1 State and Federal Special Status Species
 - 2.2 Harvest Species
 - 2.3 Resident and Migratory Waterfowl
 - 2.4 Species Biodiversity
- 3.0 Analysis of Project-related Effects on Wildlife Habitat

3.1	Riparian and Lacustrine Habitats
3.2	Wetland Habitats
3.3	Upland Habitats
4.0	Identification of potential PM&E measures
5.0	References

The report will identify potential project effects to wildlife species including band-tailed pigeon, black bear, waterfowl, black-tailed deer, special status species, CDFG harvest species, and species biodiversity. The report will also identify potential effects on wildlife habitat including black-tailed deer winter range, riparian, wetland, and lacustrine (lakes). This report will provide the basis for development of protection, mitigation and enhancement measures and settlement agreements related to wildlife and wildlife habitat. The results of these negotiations and agreements will be incorporated into a wildlife management plan for submittal to FERC as part as the license application.

Products/Deliverables

Summary report completed by January 2004

7.0 Coordination and Implementation Strategy

Coordination with Other Resource Areas/Studies

This study requires information related to current and future project operations, maintenance, recreation use and development, and land use. Coordination with these other work groups will be required for timely completion of this study. The results of this study also require completion of other terrestrial resource studies including those related to issues SP-T2, Study SP-T3, SP-T4, SP-T5, SP-T6, SP-T7, SP-T8, SP-T9, SP-T10, and SP-T11.

Issues

This study addresses the potential effects of project features, existing and future operations (including power generation, water storage and release, ramping rates, pump-back, water levels and water level fluctuations) maintenance practices, and maintenance of wildlife and wildlife habitat. This study fully or partially addresses the following Stakeholder issues:

Stakeholder issues fully addressed by SP-T1 Effects of Project Features and Operation on Wildlife and Wildlife Habitat

- TE2 Maintain winter habitat for band-tailed pigeons
- TE3 Maintain or enhance deer winter range
- TE17 Maintain habitat to support viable populations of all native and desired nonnative vertebrate species
- TE18 Improve and protect habitat for designated emphasis and harvest species
- TE20 Provide a diversity of vegetation types and habitat to support viable populations of all fish, wildlife and plant species

-
- TE41 North forebay – preservation of existing wildlife
 - TE44 Preserve wildlife habitat in the diversion pool area
 - TE50 Effects of fluctuating water levels in afterbay on wildlife
 - TE59 Operate water levels in Thermalito Afterbay to prevent adverse impacts to Pacific Flyway waterfowl, especially during nesting in spring and early summer; continue to coordinate with DFG
 - TE60 Evaluate effects of proposed increases in recreational activity in Thermalito Afterbay on waterfowl and other wildlife
 - TE63 Protection and sustained conservation of terrestrial wildlife and flora in the project-affected area; comprehensive and well-crafted planning

Stakeholder issues partially addressed by SP-T1 Effects of Project Features and Operation on Wildlife and Wildlife Habitat

- TE19 Provide diversity of plant and animal communities and tree species by assuring the continuous and viable presence of all seral stages of all native plant communities on the forest
- TE39 Manage flows and/or reservoir storage to maintain or enhance riparian plant communities and habitat for all life stages of fish. Cooperate with local, State, and other Federal water management agencies. Protect riparian areas while providing developed facilities
- TE46 Improve terrestrial habitat with introduction of salmon (bears)
- TE47 Continue inventories of plant and animal species in the project area.
- TE48 Protect riparian habitat in project area
- TE51 Restoration of areas used as stockpile sites during dam construction

8.0 Study Schedule

The schedule is highly dependant upon the schedule of the recreation, land use, and operations work groups in providing information for analyses of future operations, recreation use and facilities, and land use.

Preliminary schedule is to complete Task 2 by August 2002, Tasks 1, 3 and 4 by September 2004, and Tasks 5 and 6 by October 2004. An interim report will be provided during January 2003.. Task 7 will be completed by October 2004.